Welcome to USAF Center for Strategic Deterrence Studies News and Analysis! As part of the CSDS mission to develop U.S. Air Force, Department of Defense, and other government leaders to advance the state of knowledge, policy, and practices within strategic defense issues involving nuclear, biological, and chemical weapons, we offer the government and civilian community a source of contemporary discussions.

Feature Research


In this Perspective, the authors examine the implications of a conventional military confrontation between NATO and Russia in Europe and the associated risk of nuclear escalation. Read Perspective.

Nukes and Deterrence, Counter-WMD, and Arms Control in News and Research

NUCLEAR WEAPONS AND DETERRENCE

- Cyber Risk Across the U.S. Nuclear Enterprise (Texas National Security Review) The Biden administration has an opportunity to address issues of cyber risk across the entire nuclear enterprise in ways that previous administrations have not.

- Austin: GBSD’s Future Will Depend on New Nuclear Posture Review (Air Force Magazine) The last [NPR] ... supported the GBSD program [and] new nuclear programs ... the B-21, Long-Range Standoff Weapon, nuclear command and control, and the Ohio-class submarine replacement.

- China’s ‘Offensive Deterrence’ and Avoiding War (The Strategist) Avoiding conflict with China will require a much deeper understanding of how its rulers and military planners view deterrence and coercion, warns a new ASPI report.

- Bombers Best Bet For Aussie Deterrence Of China (Breaking Defense) “I think long-range strike is about trying to keep stability in a crisis situation. And if you're going to use it as a deterrence,” former Air Marshal Geoff Brown says.

- Space War, Like the Cold War, Is All Risk, No Reward (Air Force Magazine) “It’s important for your adversary to know a lot about what your capabilities are,” Felt said, because doing so ensures the opponent knows the risk of launching an attack.

COUNTER-WMD
Cyber Threats and Weapons of Mass Destruction (WMD Center)
WMD (chemical, biological, radiological, and nuclear weapons [CBRN]) have the known potential to produce largescale lethal effects, whereas the lethality of cyber weapons remains largely unproved.

Wearable Sensors May One Day Sniff Out Chemical Weapons for Soldiers (Popular Science)
Plenty of nasty chemicals lurk out in the world that could harm a human being, whether they are sinister agents like mustard gas or industrial substances prone to combustion.

MDA Sees EW, Cyber For Future Missile Defense (Breaking Defense)
DoD is about to launch a new Missile Defense Review, Hill said, with the last one released in January 2019 but actually completed in 2017.

Game On! NPS’ Wargaming Week Ties Tactics, Strategy to Improve Defense Planning (U.S. Navy)
“Understanding the effects of current WMDs is the first step in increasing the lethality and survivability of a unit.”

US ARMS CONTROL

The Impact of the Post-Arms Control Context and Great Power Competition in the Arctic (Arctic Institute)
Arms control enhances strategic stability and mutual cooperation by creating confidence through transparency, predictability, and verification mechanisms (such as inspections) for compliance.

Chinese Nuke Modernization Prompts Shift In DoD Strategy (Breaking Defense)
“The Chinese intertwining of nuclear and conventional capabilities ... also highlights how differently the Chinese look at nuclear deterrence,” Cheng observes.

North Korea Gives the U.S. the Cold Shoulder on Nuclear Talks (Wall Street Journal)
Kim Yo Jong, the dictator’s sister, said Mr. Sullivan’s comments were a misread of the situation that promises greater disappointment for the U.S., state media reported Tuesday.

Nuclear Arms Control After the Biden-Putin Summit (Congressional Research Service)
With its mention of “arms control and risk reduction measures,” the joint statement also seems to indicate that the talks will not focus exclusively on negotiating a new treaty limiting nuclear weapons.

COMMENTARY

A Credible Deterrent to Chinese Cyber Attacks (U.S. Naval Institute)
“The Cold War nuclear deterrent record is discouraging. Until the 1980s, there was apparently no serious attempt in the United States to discover exactly what would have deterred the Soviets.”

Can a Credible Nuclear Breakout Time With Iran Be Restored? (Carnegie Endowment)
“Taken together, four developments present a stark reality. First, Iran’s nuclear weapon capabilities have advanced to the point that it is now alarmingly close to the nuclear threshold ... .”

A Bipartisan Missile Buildup (Wall Street Journal)
"Signed in 1987 by the U.S. and Soviet Union, the INF sought to wind down the Cold War, but the pact has since mainly redounded to China’s benefit."